

## INQUIRY INTO ELECTRICITY SUPPLY, DEMAND AND PRICES IN NEW SOUTH WALES

**Organisation:** Cotton Australia

**Date Received:** 18 May 2018

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The Hon. Paul Green MLC  
Committee Chair  
Select Committee on Electricity Supply, Demand and Prices in NSW  
Parliament House  
Macquarie Street, Sydney, 2000  
Submitted by email: electricity [supply@parliament.nsw.gov.au](mailto:supply@parliament.nsw.gov.au)

## **NSW Parliamentary Inquiry into Electricity Supply, Demand and Prices in NSW**

Dear Chair

Thank you for the opportunity to make this late submission.

Cotton Australia is the peak national body representing cotton growers and ginnings. The cotton industry is an integral part of the Australian economy, contributing around \$2.5 billion to the national economy. The major production area of cotton in NSW stretches south from the Macintyre River on the Queensland border and covers the Gwydir, Namoi and Macquarie valleys. In NSW cotton is also grown along the Barwon and Darling rivers in the west and the Lachlan and Murrumbidgee rivers in the south. Energy along with water are key inputs for our industries production and success.

Cotton Australia welcomes the opportunity to provide comment at this late stage. As an industry we are active in our engagement around issues of energy at a state and national level. Our industry, have actively engaged in initiatives to mitigate rising electricity prices. Many have installed and adopted energy efficiency measures and invested in renewable energy technology such as solar.

Since 2007, wide-scale Federal water reform has driven structural adjustments towards water use efficiency in the irrigation sector across NSW, Queensland and Victoria. The adoption of water efficient infrastructure on farm has delivered significant water savings (for cotton growers this has been as much as 40%) yet because water and energy use are interlinked in agriculture, this has resulted in substantially higher electricity costs for irrigators due to greater electricity use.

An internal analysis by Cotton Australia in 2014 revealed electricity bills for irrigators have increased by up to 300 per cent over the period (2009–2014), mainly due to rising network charges. This electricity cost pressure has also been confirmed by the Australian Competition and Consumer Commission in its 2017 inquiry into retail electricity pricing<sup>1</sup>. Industry benchmarking costs for the cotton industry indicates that energy was the second highest cost of production, with electricity representing the most substantial increase in costs – outstripping the consumer price index many times.

The continuous increase in the cost of network services and the underlying regulatory framework governing network tariffs (i.e. time of use and demand driven tariffs) are the main reasons irrigators are considering 'going off grid' in an effort to reduce the cost of production. The rising electricity costs cannot be offset by growers and irrigators because they are price takers in an international commodity markets and have therefore no ability to dictate returns achieved for the fibre they produce.

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<sup>1</sup> <https://www.accc.gov.au/publications/accc-retail-electricity-pricing-inquiry-preliminary-report>



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The apparent ever rising cost of electricity has become a major constraining factor in the use of water efficient irrigation equipment. Growers are turning to alternative energy sources and turning away from electricity and renewables to diesel due to unsustainable pricing.

A 2013 study found median direct energy expenditure represents 8.5% of average cotton production costs, at that time this represented \$3627 per hectare, with diesel fuel at least 85% of the total direct energy expenditure.<sup>2</sup>

Furthermore, Cotton Australia considers it is to be economically irresponsible to force existing customers off the grid, where capital investment has already been made, in blind pursuit of market-based economics. The result of customers leaving the grid, should be a major concern for Government and its infrastructure. The additional and more important concern is that remaining users will have to pay more through rising prices to meet the revenue cap.

Essentially, there are two major issues for the cotton industry, operational constraints and the regulatory framework around pricing and tariffs.

### **Operational Constraints**

Irrigators and Ginning operator's electricity use is dictated by variations in weather and crop water requirements and seasonal harvest market demands of customers, respectively. A grower use of electricity is inelastic in nature. For a grower to be successful and viable they cannot govern their electricity use according to different electricity price signals (i.e. peak vs shoulder electricity rates).

While ginning operators are held to the behest of customer demand at harvest time. As a practical example, a gin operates for approximately 2/3 months a year. Ginning operators would like to be able to test run their operations and machinery to 'blow out the cobwebs'. However, for that operator to simply 'turn the switch on' it may cost up to \$50,000 as the tariff structure is based purely on demand-based tariffs for that time period as opposed to consumptive based tariffs spread across that billing period.

### **Regulatory Framework (Costs & Tariffs)**

The increasing cost for electricity in addition to the NSW network tariffs structures have severe impacts on the industries overall profitability and operational sustainability. The tariff structures should be incentivizing industry to invest in renewable energy sources while utilizing existing infrastructure. However, in reality as stated above, industry, specifically irrigators are being forced off the grid. This is purely a result of being moved onto 'time of use' or 'demand-based tariffs'.

The issues around the industries operational constraints and regulatory framework issues can be resolved through allowing access to consumptive based tariffs or creating specialised tariff structures that properly reflect the industries unique electricity use characteristics.

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<sup>2</sup> Foley J.P., Sandell G.R., Szabo P.M., Scobie M., and Baillie C.P. (2015) "Improving energy efficiency on irrigated Australian cotton farms, Benchmarking Report", National Centre for Engineering in Agriculture, University of Southern Queensland, Toowoomba.

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### **General Commentary**

As a final observation, the Australian cotton is a highly mechanised sector that is renowned for being an early adopter of technology<sup>3</sup> that is willing to be part of the energy solution.

For that reason, Cotton Australia has partnered with NSW Irrigators' Council (NSWIC) and the Queensland Farmers' Federation (QFF) to commission research into options to provide better access to, and more affordable, energy for farmers in Queensland and New South Wales.

The project also investigates the potential for renewable technologies to be better integrated with existing grid networks and complement other energy projects led by the agricultural sector. It is funded by an Energy Consumers Australia grant and the results will be available in the second half of 2018.

The cotton industry and rural consumers more broadly should not be penalised for having a forward-looking disposition. Our members just want access to affordable and reliable energy that has a low emission profile in order to grow sustainable cotton.

Cotton Australia would be delighted to present to this inquiry in person, to provide further detail on the issues raised. For further information on this submission please contact Michael Murray  
or

Kind regards,

Michael Murray,  
General Manager  
Cotton Australia

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<sup>3</sup> For example 45% use some form of automation on farm to manage their irrigation and for 35% of growers this includes the use of software. 2017 Cotton Research and Development Corporation Grower Survey [<https://www.crdc.com.au/publications/growersurvey>]